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AUTHOR Tharp, Cathie Jordan
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ABSTRACT

This paper reports research on interactional patterns associated with teaching and learning among Polynesian-Hawaiian children. Earlier ethnographic studies indicate that Hawaiian people may employ sets of learning and teaching behaviors which differ widely from those usually used in public schools. Comparison of videotaped mother and child interactions of both Hawaiians and Midwesterners showed that Hawaiian mothers used fewer verbal directions than did Midwestern mothers, although interaction rates were the same in both groups. Children of Hawaiian mothers who were high in verbal direction were more advanced in school at the end of the first grade than were children of Hawaiian mothers who were low in verbal direction. Observation of Hawaiian child-child classroom interactions has resulted in the identification of information-seeking, help-seeking, and teaching patterns. Interaction of Hawaiian children is built on mutual involvement in the accomplishment of specific tasks. The rule-statements and verbal directions pervasively used by teachers in public schools are notably absent from Hawaiian child-child interactions. Further research into child-child teaching and learning is planned. (RH)

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Technical Report #67

Learning-Teaching Interactions Among Polynesian-Hawaiian Children in a School Context: Rationale, Method, and Preliminary Results

Cathie Jordan (Tharp)

Paper presented at the 1976 meetings of the
American Anthropological Association
November, 1976

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The Kamehameha Early Education Program

The Kamehameha Early Education Program (KEEP) is a research and development program of The Kamehameha Schools/Bernice P. Bishop Estate. The mission of KEEP is the development, demonstration, and dissemination of methods for improving the education of Hawaiian and Part-Hawaiian children. These activities are conducted at the Ka Na'i Pono Research and Demonstration School, and in public classrooms in cooperation with the State Department of Education. KEEP projects and activities involve many aspects of the educational process, including teacher training, curriculum development, and child motivation, language, and cognition. More detailed descriptions of KEEP's history and operations are presented in Technical Reports #1-4.

Abstract

Ethnographic and contrived-situation data suggest that Polynesian-Hawaiian children may be socialized in their homes to employ learning strategies which are quite different from those demanded of them in teacher-student interactions in school. The occurrence and nature of these strategies are being investigated through study of the teaching and learning behaviors used by Hawaiian children to exchange information among themselves in the classroom. Preliminary results indicate a high frequency of use of in-context modeling, intervention, and mutual participation, and a relatively low frequency of rule statements and verbal directions.

Learning-Teaching Interactions Among Polynesian-Hawaiian Children in a School Context: Rationale, Method, and Preliminary Results

Cathie Jordan (Tharp)

This paper reports the early stages of on-going research into the teaching and learning strategies which occur within a population of children of Hawaiian ancestry in an urban school setting in Honolulu, Hawaii. The research has three major goals. These are: 1) to describe the kinds of teaching and learning behaviors employed in a school classroom setting by Hawaiian and part-Hawaiian children who come from low-income, urban families; 2) to determine whether within-group variation in these behaviors is related to variation in degree of successful adaptation to the school environment; and 3) to determine whether school use of instructional methods designed to be congruent with the strategies employed by the children (if such can be clearly defined) might alleviate some of the difficulties that Hawaiian children typically experience in school. Efforts toward the first goal are the subject of this report.

The study described here is part of a large-scale research effort taking place under the auspices of the Kamehameha Early Education Program. The Kamehameha Early Education Program (KEEP) is a research and development program of The Kamehameha Schools/Bernice P. Bishop Estate. The mission of KEEP is the development, demonstration, and dissemination of methods for

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* The term, 'teaching', is used to designate any task- or skill-oriented information transmittal.

improving the education of Hawaiian and part-Hawaiian children. These activities are conducted at the Ka Na'i Pono Research and Demonstration School, and in public classrooms in cooperation with the State Department of Education. KEEP projects and activities involve many aspects of the educational process, including teacher training, curriculum development, and child motivation, language and cognition.

The research reported in this paper is taking place at the Ka Na'i Pono School. The population of the school is recruited in such a way as to represent the general public school population in the district where the school is located and to roughly represent other urban districts which have a large Hawaiian* population. Seventy-five percent of the children are of Hawaiian or part-Hawaiian ancestry, while twenty-five percent belong to other ethnic groups. Two-thirds of the children come from families which are rated as falling in the lower socioeconomic categories while one-third come from middle-class homes. Almost all of the children speak Hawaiian Creole** among themselves. All of the children are from urban neighborhoods. The school is made up of grades kindergarten through third grade. The children who are the subjects of this preliminary report are in kindergarten and first grade and are all ethnically Hawaiian.

An interest in teaching and learning modes, particularly among people of Hawaiian ancestry, originated during the course of ethnographic field work done several years ago in a Hawaiian community on Oahu. Observations in that community led to the hypothesis that its members tended to acquire many

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*The term, Hawaiian, will be used to designate people of pure or part-Polynesian ancestry who identify themselves as belonging to the Hawaiian ethnic group.

**Hawaiian Creole English or Hawaiian Islands Creole is a dialect of English spoken as a first language by many Island-born people and spoken and/or understood to some extent by most long-term Island residents.

different kinds of skills by a process of learning and teaching which involved a great deal of modeling, observation, imitation, and mutual participation in the skill to be learned by both teacher and learner, and very little teaching through exclusively verbal direction or explicit rule statement. For example, in the course of investigating the work life of men in the community, it was discovered that many of the men had acquired their first work skills (the jobs involved being mainly of the skilled and semi-skilled variety) by going to the job with an older, employed relative or friend (Boggs, 1969). The younger man observed that older relative or friend practicing the skills that were needed in the job for some time, and then gradually began to participate in the work. Finally the younger man would become skillful enough to try for a job of his own which would involve the skills that he had learned in his informal apprenticeship. This was the much more common course of acquiring job skills than was any sort of formal schooling or training program. Another example: field workers noted that children seem to receive very little in the way of explicit verbal directions about the skills or tasks which were necessary for full participation in a Hawaiian household. Instead, they spent a great deal of time with older siblings, observing them exhibiting such skills and gradually increasing their own participation in household activities, until, by the age of 10 or 11 most were very competent in cooking, housekeeping, and child care (Gallimore, Boggs, & Jordan, 1974). A third example: the mothers in the community often replied to queries about how their youngsters learned certain basic self-care skills (for example, using the toilet) by saying that they (the mothers) didn't know for sure but thought it must have been by watching the older brothers or sisters (Gallimore, Boggs, & Jordan, 1974). Many examples of this kind were observed and led eventually to the hypothesis that perhaps Hawaiian people in general, and Hawaiian children in particular, were

accustomed to a different set of learning and teaching behaviors than those that are usually used in public schools, which, observations seemed to show, very heavily emphasize following verbal directions (which are often out of context) and learning explicitly-stated rules for behavior. Because Hawaiian children in general, have a very difficult time in school, the idea that part of the problem that Hawaiian children experience may be that they are accustomed to a different mode of teaching and learning seemed to be worth investigating (Jordan, 1975).

The idea that culturally-distinct peoples may learn (and by implication, teach) in cognitively and behaviorally different ways is, of course, not a new one. Mead (1942; 1964), Rohner (1965), Lee (1967), Cole, Gay, Glick and Sharp (1971), Cazden and John (1971), Phillips (1970), John (1972), Scribner and Cole (1973), among others, have suggested the general thesis and/or described particular cases. The literature will not be reviewed in detail here, but its existence encourages this attempt at a systematic study of learning modes.

With this ethnographic background as the original stimulus, a study was done at the KEEP school on the ways in which mothers of kindergarten children interacted with them in a task-oriented situation (Jordan, 1976). It was decided to first investigate a single aspect of this area of interest---the amount of verbal direction used by mothers. The interactions between the mothers and their children were videotaped and were later coded for frequency of use by the mothers of strategies whose predominant element was verbal direction. Similar videotapes were obtained for a comparison group of Mid-western, middle-class Caucasian women and children. Analysis of the results indicated that the KEEP mothers used a lower percentage of verbal directions than did the Mid-western mothers, although their overall interaction rates were the same. Among the KEEP mothers, those who used more verbal directions

had children who by the end of first grade (a year and a half after the videotapes were made) were doing better in school than children whose mothers used fewer verbal directions.

These results led to an interest in delineating the intervening variables between mothers' teaching or helping behaviors and child's adaptation to school. Consequently it was decided to directly examine teaching-learning interactions among the children in the KEEP school. Child-child, rather than child-teacher, interactions were focused upon, because the form of child-teacher interactions is often largely controlled by the teacher. Child-child interactions were felt to more accurately reflect the children's home-learned ("Hawaiian") strategies.

The investigation will eventually have three stages of which only the first will be discussed in detail here. The first stage (currently underway) involves an attempt to observe and describe the teaching and learning interactions which occur among young Hawaiian children in the natural classroom context. The second stage will involve a contrived situation in which all the children can be observed under the same set of conditions in task-oriented interactions, so that within-group variations in teaching/learning behaviors can more accurately be assessed. The third stage will be one of experimental teaching. The descriptive stage is presently about half finished. The main data gathering techniques being used are in-classroom observation and videotaping. The observer sits in the classroom close to a group of children and attempts to make paper and pencil notes of any task- or skill-oriented, information-transmitting interactions. The observer tries to record not only the interaction itself but also the social and physical context in which the interaction takes place. About half of these observation sessions are simultaneously videotaped. That is, while the observer is focusing on a particular group of children, that group of children is also being videotaped using a

remote-controlled camera which is permanently mounted near the ceiling of the classroom, and a wireless microphone in a box which is fastened to the table where the children are sitting. The videotapes are later played back and the observer constructs as full as possible an account of each taped sequence from a combination of the in-classroom notes and the videotape record. Some observations are also done from an observation deck equipped with one-way glass and on the playground.

The results of the study thus far must be phrased in qualitative, rather than quantitative, terms. There is, as a matter of fact, some effort to avoid premature rigid coding or categorizing of the data since it is felt that it might prejudice subsequent observation. However, it is possible to describe several kinds of frequently-appearing patterns, both of information- and help-seeking and of "teaching."

As far as soliciting help or information is concerned, there seem to be two methods which are most effective in producing some helping or teaching behavior on the part of other children. One involves a direct request, but a request which is directed to a general audience rather than to a specific other child. This is the kind of thing that occurs when a child says, "How you do this?" without speaking to anyone in particular. This often gets a reaction from one of the nearby children. Another technique is an indirect approach in which the child indicates in some way his inability to do the task at hand but does not directly ask for aid. The child may simply declare to the world at large, "I cannot." Or, she/he may use a more elaborate technique:

> D (a first grade girl) has been doing some math problems. She apparently is getting discouraged. She stops working. She scrunches down in her chair and says, "Oh, give up! Trouble. Trouble. Trouble." She has a sulking, puzzled, expression on her face. Her neighbor, C, turns toward D and picks up D's workbook. She looks through the book and then says, "Oh, you pau (finished) already. Give to teacha. All pau." She closes D's book and drops it on the table in front of D; then she goes back to her own work. About 30 seconds later, D takes her book up to the teacher.

Here, an expression of distress, although not directed to C, elicited a concerned response from her.

When the children give help or teach another child, the two most popular techniques seem to be modeling and intervention. In modeling, one child does a behavior which is, in that context, appropriate for a second child (and not necessarily for the first), thus showing the second child what to do.

> K (kindergarten class girl) has finished her work and is coloring. S (a boy) is still working at the same table. The teacher comes by and tells S to circle his name on his work paper. The teacher leaves. S sits looking at the paper but not doing anything. K looks over at S and then points to his name on his paper. He circles it. He then looks at K; K raises her hand while looking directly at S. S raises his hand (a signal to the teacher that his work is completed). At this point K lowers her hand and goes back to her coloring. S keeps his hand up. Eventually the teacher comes over, praises S for raising his hand and collects his work.

Intervention occurs when a child actually does the correct behavior for another child or physically causes the other child to do it. For example, for a while there was a girl named I in the kindergarten class, who was later discovered to be learning disabled and transferred to a special class. While she was in the kindergarten class she often seemed bewildered about what to do. She was taken under the wing of a little girl named M. M used to intervene pretty frequently on I's behalf. She would do things like raise I's hand for her when that was the appropriate behavior. Often she would physically lead I by the hand to whatever place she was supposed to be at the moment.

Another example involves two children with no special learning problems:

> The substitute teacher is trying to help T (a first grade boy) figure out how to find out what the math assignment is. The assignment is written on the chalkboard. She has him go to the board and asks him to point to the various words and numbers there. He is obviously making an effort but is doing almost everything wrong.
>
> C (a first grade girl) wanders by while T is standing at the board. She watches him for a few seconds.
>
> At the next direction from the substitute teacher, she points to the appropriate word and T imitates her. The teacher gives another direction and T hesitates. C takes T's hand and pushes it over so it points to the right word. She also points to the right word herself.

Then T, on his own, points to the correct word and C leaves the scene.

Here we find both modeling and intervention; and many interactions do, of course, involve a combination of strategies.

> J and A (in kindergarten) are doing math problems. J has been trying to add using his fingers---holding up fingers on both hands, and using his chin as the counter. He has been having some difficulty doing it. Now A is helping J with his work. He holds his fingers out to A and she counts on them for him.
>
> This kind of interaction goes on for perhaps five minutes. J repeatedly holds out his fingers for A to count. A counts, says the answer, and in some cases writes down the answer on J's paper. After about three or four minutes of this, J also begins to get the answers correct and he says the answers either at about the same time as A or before she does, sometimes before she even gets all his fingers counted off. He also begins to write down some of his own answers on his paper, but A continues to both write on his paper and erase things on his paper, to which J makes no objection whatsoever.

Interactions may be fairly complicated, as is the one above, and involve long sequences of various strategies. However, what is not often involved, as far as can be determined at this point, is one child stating general rules or principles to another child, while the second child must work out the way in which he needs to use the rules or principles in the specific context. Interaction tends to be oriented toward accomplishment of specific tasks rather than transmission of rule-statements. This is not to say that the children do not learn principles from each other, as J in the above example seems to have begun (toward the end of the interaction sequence) to learn some addition rules. But this often appears to take place through a process of induction from repeated examples, rather than by direct teaching of rule-statements. It's also fairly infrequent for a child to attempt to transmit information to another child without himself (or herself) becoming involved in the task. Most child-child teaching seems to take place with both teacher and learner being mutually involved in the task at hand. All of this is quite different from the way the adult school teachers operate, which involves a good deal of rule-statement and fairly long sequences of verbal directions which the

children are then supposed to follow on their own, without the teacher or anyone else participating in the task.

It is still too early to make generalizations about the data with any confidence; but by the end of the 1976-77 school year it is hoped to have some fairly intimate knowledge of the ways in which children from this particular population operate in the school setting---the ways in which they engage in learning from and teaching each other.

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